



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 159310

TO: Fiona Powers

Location: rem/4A31/5C18

Art Unit: 1626

Aug 9, 2005

Case Serial Number: 10/09/928055

From: P. Sheppard

Location: Remsen Building

Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes

=> d his ful

(FILE 'REGISTRY' ENTERED AT 17:16:24 ON 09 AUG 2005)

L1 STR
L2 3555 SEA SSS FUL L1
L3 STR
L4 STR
L5 16 SEA SUB=L2 SSS FUL L3 AND L4

FILE 'HCAPLUS' ENTERED AT 17:20:17 ON 09 AUG 2005

L6 4 SEA ABB=ON PLU=ON L5
D STAT QUE
D IBIB ABS HITSTR L6 1-4

FILE HCAPLUS

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FILE COVERS 1907 - 9 Aug 2005 VOL 143 ISS 7
FILE LAST UPDATED: 8 Aug 2005 (20050808/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 8 AUG 2005 HIGHEST RN 859027-58-0
DICTIONARY FILE UPDATES: 8 AUG 2005 HIGHEST RN 859027-58-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS

for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

=> fil hcaplu
FILE 'HCAPLUS' ENTERED AT 17:20:17 ON 09 AUG 2005
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 9 Aug 2005 VOL 143 ISS 7
FILE LAST UPDATED: 8 Aug 2005 (20050808/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d stat que
L1 STR

22 20
G2~C
23 C~C
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C 5
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28 24
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30 31

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VAR G3=C/N
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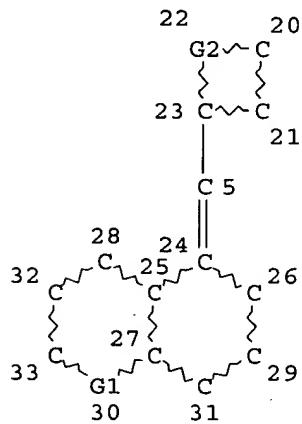
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L2 (3555)SEA FILE=REGISTRY SSS FUL L1
L3 STR



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NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

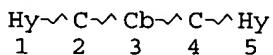
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L4 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS PCY AT 1

GGCAT IS PCY AT 5

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED ON

STEREO ATTRIBUTES: NONE
L5 16 SEA FILE=REGISTRY SUB=L2 SSS FUL L3 AND L4

=>

=> d ibib abs hitstr 16 1-4

L6 ANSWER 1 OF 4 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:1004592 HCPLUS
 DOCUMENT NUMBER: 140:6182
 TITLE: Infrared chromophores and printing inks containing them
 INVENTOR(S): Hall, Lachlan Everett; Silverbrook, Kia
 PATENT ASSIGNEE(S): Australia
 SOURCE: U.S. Pat. Appl. Publ., 118 pp., Cont.-in-part of U.S.
 Ser. No. 693,301.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 11
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002136972	A1	20020926	US 2001-927684	20010810
EP 1196752	A1	20020417	EP 2000-938343	20000630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002088064	A1	20020711	US 2001-927685	20010810
ZA 2002000847	A	20030130	ZA 2002-847	20020130
US 2003094500	A1	20030522	US 2002-291577	20021112
US 6843420	B2	20050118		
US 2005022937	A1	20050203	US 2004-933285	20040903
US 2005061448	A1	20050324	US 2004-949307	20040927
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PRIORITY APPLN. INFO.:				
		AU 1999-559	A	19990525
		AU 1999-1313	A	19990630
		AU 1999-3632	A	19991025
		AU 2000-9376	A	20000814
		AU 2000-9412	A	20000814
		AU 2000-9509	A	20000818
		AU 2000-9561	A	20000821
		AU 2000-9571	A	20000821
		US 2000-693301	A2	20001020
		AU 1999-3457	A	19991015
		AU 1999-4392	A	19991201
		AU 2000-5829	A	20000224
		US 2000-575154	A1	20000523
		WO 2000-AU775	W	20000630
		US 2002-291577	A1	20021112
		US 2002-322450	A1	20021219

OTHER SOURCE(S): MARPAT 140:6182

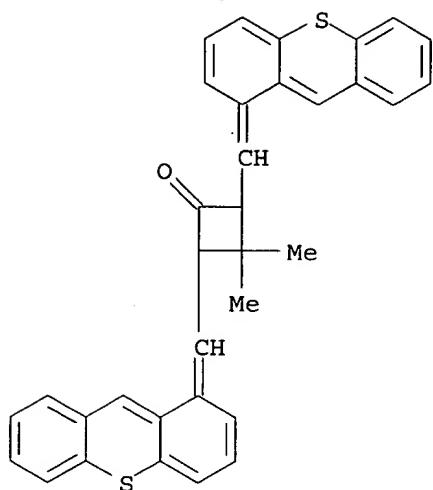
AB Cycloalkane-based compds., especially IR dyes which absorb strongly in the near IR region of the spectrum but poorly in the visible regions, are disclosed. The dyes are characterized by calculated IR spectra and are suitable for use in IR-absorbing printing inks.

IT 398491-08-2 398491-09-3

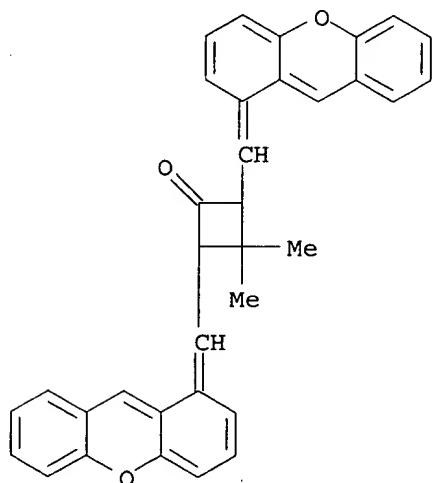
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (dye; near-IR-absorbing chromophores and printing inks containing them)

RN 398491-08-2 HCPLUS

CN Cyclobutanone, 3,3-dimethyl-2,4-bis(1H-thioxanthene-1-ylidene)methyl) - (9CI)
 (CA INDEX NAME)



RN 398491-09-3 HCPLUS

CN Cyclobutanone, 3,3-dimethyl-2,4-bis(1H-xanthen-1-ylidenemethyl)- (9CI)
(CA INDEX NAME)

L6 ANSWER 2 OF 4 HCPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:555827 HCPLUS

DOCUMENT NUMBER: 137:126576

TITLE: Bridged diarylpolyimine chromophores as infrared dyes for inks for jet printing or offset printing

INVENTOR(S): Hall, Lachlan Everett; Silverbrook, Kia

PATENT ASSIGNEE(S): Australia

SOURCE: U.S. Pat. Appl. Publ., 104 pp., Cont.-in-part of U.S. Ser. No. 693,301.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002095733	A1	20020725	US 2001-928055	20010810
EP 1196752	A1	20020417	EP 2000-938343	20000630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
ZA 2002000847	A	20030130	ZA 2002-847	20020130
US 2003094500	A1	20030522	US 2002-291577	20021112
US 6843420	B2	20050118		
US 2005022937	A1	20050203	US 2004-933285	20040903
US 2005061448	A1	20050324	US 2004-949307	20040927
US 2005064502	A1	20050324	US 2004-986403	20041112
US 2005064503	A1	20050324	US 2004-986404	20041112
PRIORITY APPLN. INFO.:			AU 1999-559	A 19990525
			AU 1999-1313	A 19990630
			AU 1999-3457	A 19991015
			AU 1999-3632	A 19991025
			AU 1999-4392	A 19991201
			AU 2000-9376	A 20000814
			AU 2000-9412	A 20000814
			AU 2000-9509	A 20000818
			AU 2000-9561	A 20000821
			AU 2000-9571	A 20000821
			US 2000-693301	A2 20001020
			AU 2000-5829	A 20000224
			US 2000-575154	A1 20000523
			WO 2000-AU775	W 20000630
			US 2002-291577	A1 20021112
			US 2002-322450	A1 20021219

OTHER SOURCE(S): MARPAT 137:126576

AB An IR dye comprises 2 bridged diarylpolymethine type dyes or derivs. connected together at either the 3, 4, 5 or 6 position by a central moiety such that the 2 dyes are located on each side of the central moiety, where the IR dye absorbs strongly in the near IR region of the spectrum but poorly in the visible region of the spectrum. The central moiety is selected from squarylium, croconium, methinologs and derivs. Calculated absorption spectra are shown for the zwitterionic forms of 8 dyes.

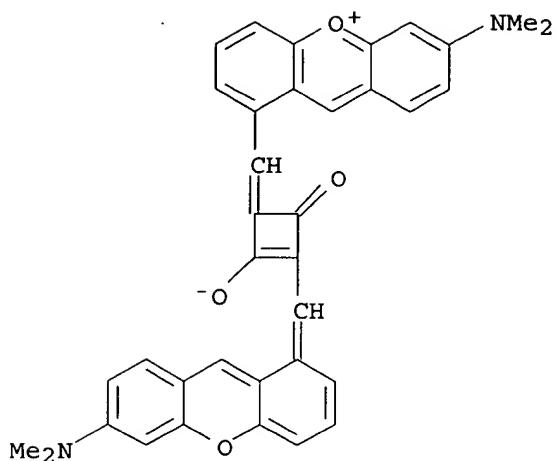
IT 400602-20-2 400602-22-4 444018-59-1
 444018-60-4 444018-61-5 444018-62-6
 444018-63-7 444018-64-8

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(near IR dyes for inks for jet printing)

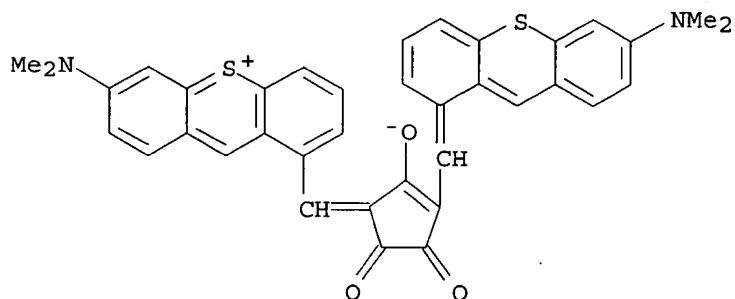
RN 400602-20-2 HCPLUS

CN Xanthylium, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-xanthen-1-ylidene]methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



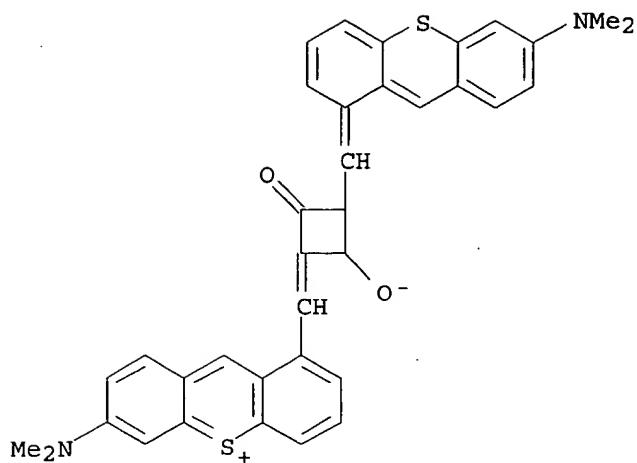
RN 400602-22-4 HCAPLUS

CN Thioxanthylum, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-thioxanthen-1-ylidene]methyl]-2-hydroxy-4,5-dioxo-2-cyclopenten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



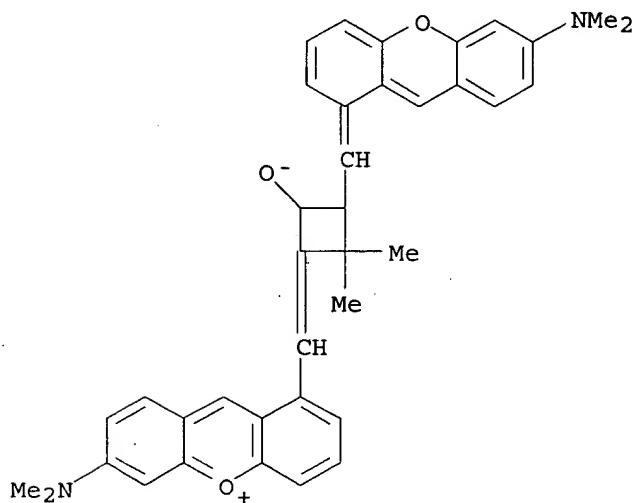
RN 444018-59-1 HCAPLUS

CN Thioxanthylum, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-thioxanthen-1-ylidene]methyl]-2-hydroxy-4-oxocyclobutylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



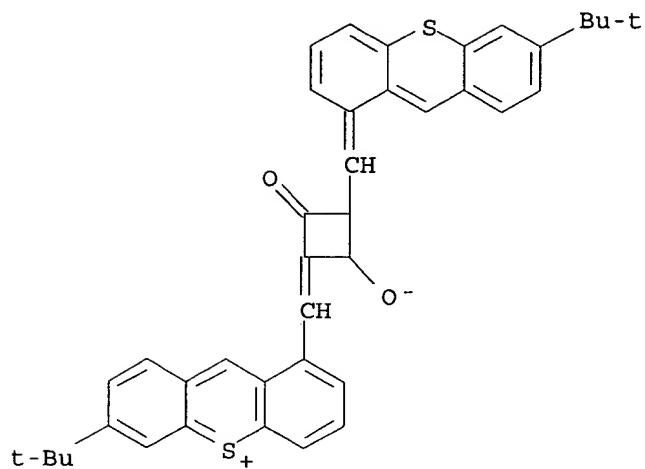
RN 444018-60-4 HCAPLUS

CN Xanthylium, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-xanthen-1-ylidene]methyl]-4-hydroxy-2,2-dimethylcyclobutylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



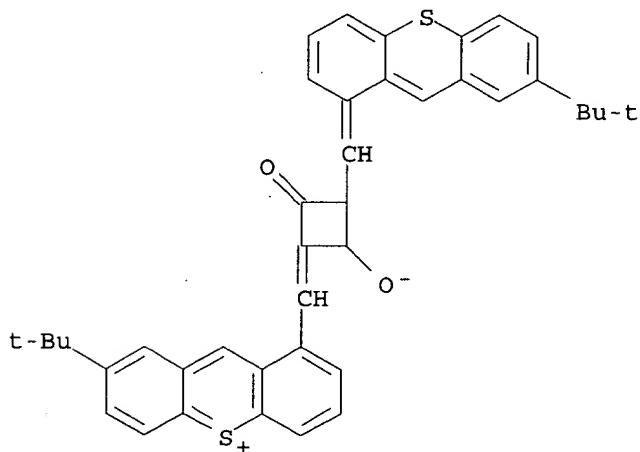
RN 444018-61-5 HCAPLUS

CN Thioxanthylium, 6-(1,1-dimethylethyl)-1-[[3-[[6-(1,1-dimethylethyl)-1H-thioxanthen-1-ylidene]methyl]-2-hydroxy-4-oxocyclobutylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



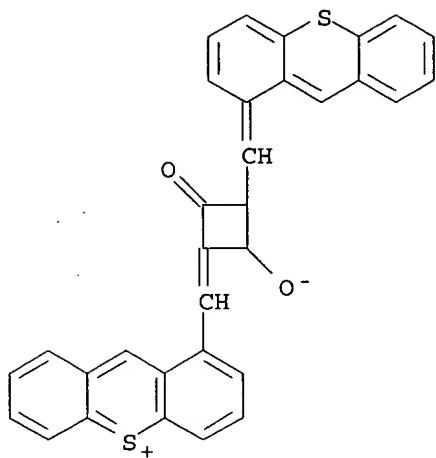
RN 444018-62-6 HCAPLUS

CN Thioxanthylum, 7-(1,1-dimethylethyl)-1-[[3-[[7-(1,1-dimethylethyl)-1H-thioxanthen-1-ylidene]methyl]-2-hydroxy-4-oxocyclobutylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)

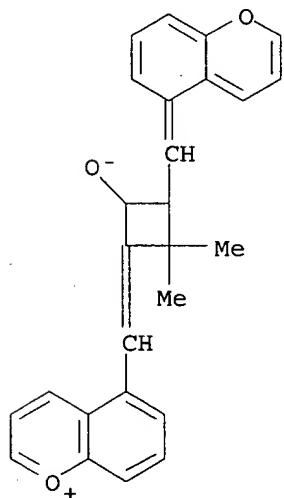


RN 444018-63-7 HCAPLUS

CN Thioxanthylum, 1-[[2-hydroxy-4-oxo-3-(1H-thioxanthen-1-ylidene)methyl]cyclobutylidene]methyl-, inner salt (9CI) (CA INDEX NAME)



RN 444018-64-8 HCPLUS
 CN 1-Benzopyrylium, 5-[[3-(5H-1-benzopyran-5-ylidenemethyl)-4-hydroxy-2,2-dimethylcyclobutylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 4 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2002:142815 HCPLUS
 DOCUMENT NUMBER: 136:185329
 TITLE: Infrared chromophores and printing inks containing them
 INVENTOR(S): Hall, Lachlan Everett; Silverbrook, Kia
 PATENT ASSIGNEE(S): Silverbrook Research Pty. Ltd., Australia
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 11
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002014438	A1	20020221	WO 2001-AU999	20010814
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001079501	A5	20020225	AU 2001-79501	20010814
PRIORITY APPLN. INFO.:			AU 2000-9376	A 20000814
			AU 2000-9412	A 20000814
			AU 2000-9509	A 20000818
			AU 2000-9561	A 20000821
			AU 2000-9571	A 20000821
			WO 2001-AU999	W 20010814

OTHER SOURCE(S): MARPAT 136:185329

AB Cycloalkane-based IR dyes which absorb strongly in the near IR region of the spectrum but poorly in the visible regions are disclosed. The dyes are characterized by calculated IR spectra and are suitable for use in IR-absorbing printing inks.

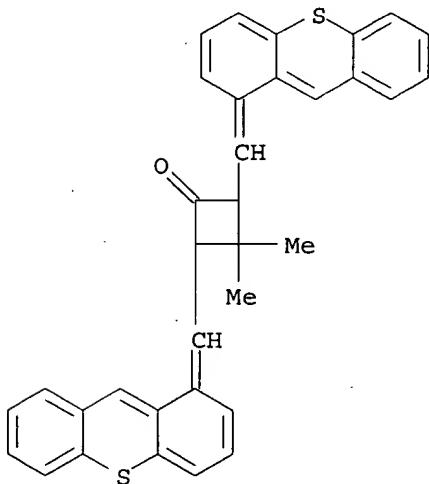
IT 398491-08-2 398491-09-3

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(dye; near-IR-absorbing chromophores and printing inks containing them)

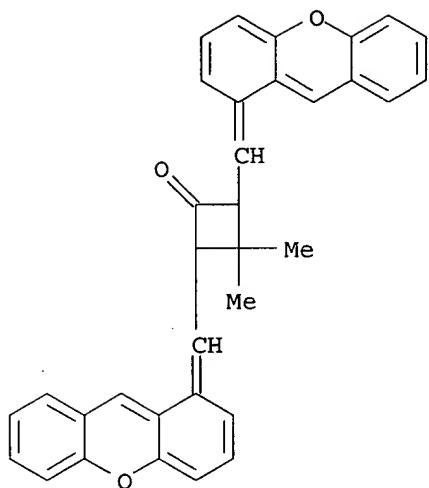
RN 398491-08-2 HCPLUS

CN Cyclobutanone, 3,3-dimethyl-2,4-bis(1H-thioxanthan-1-ylidenemethyl) - (9CI)
(CA INDEX NAME)



RN 398491-09-3 HCPLUS

CN Cyclobutanone, 3,3-dimethyl-2,4-bis(1H-xanthan-1-ylidenemethyl) - (9CI)
(CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 4 HCPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2002:142814 HCPLUS
 DOCUMENT NUMBER: 136:185328
 TITLE: Cycloalkenone-bridged heterocyclic diarylpolymer methine near-IR dyes and printing inks containing them
 INVENTOR(S): Hall, Lachlan Everett; Silverbrook, Kia
 PATENT ASSIGNEE(S): Silverbrook Research Pty. Ltd., Australia
 SOURCE: PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 11
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002014437	A1	20020221	WO 2001-AU1002	20010814
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001079503	A5	20020225	AU 2001-79503	20010814
PRIORITY APPLN. INFO.:			AU 2000-9376	A 20000814
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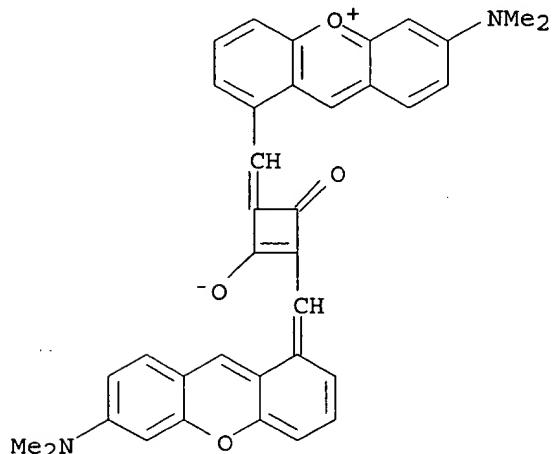
OTHER SOURCE(S): MARPAT 136:185328

AB Disclosed are IR dyes which comprise two bridged diarylpolymer methine type dyes or derivs. thereof connected together by a central cycloalkenone

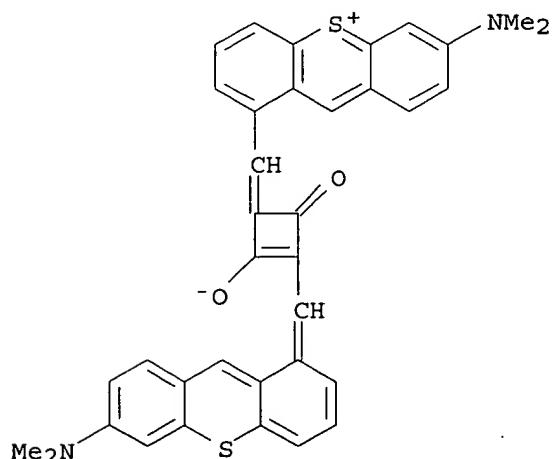
moiety, wherein the dyes absorb strongly in the near-IR region of the spectrum but poorly in the visible region of the spectrum. The dyes, typically squarylium-based, are suitable for IR jet-printing inks. Examples of calculated spectra were given for 8 zwitterionic dyes.

IT 400602-20-2 400602-21-3 400602-22-4
 400602-23-5 400602-24-6 400602-25-7
 400602-26-8 400602-27-9
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (dye; cycloalkenone-bridged heterocyclic diarylpolyimine near-IR dyes for printing inks)

RN 400602-20-2 HCPLUS
 CN Xanthylium, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-xanthen-1-ylidene]methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)

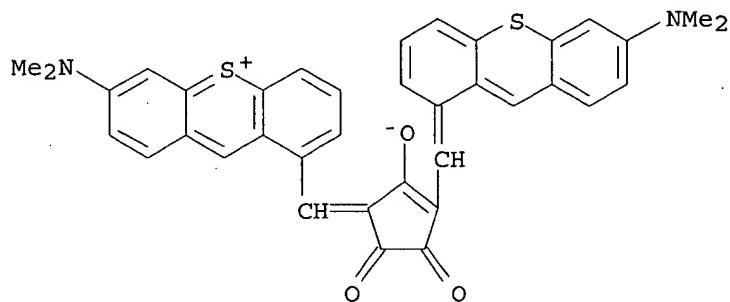


RN 400602-21-3 HCPLUS
 CN Thioxanthylium, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-thioxanthen-1-ylidene]methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



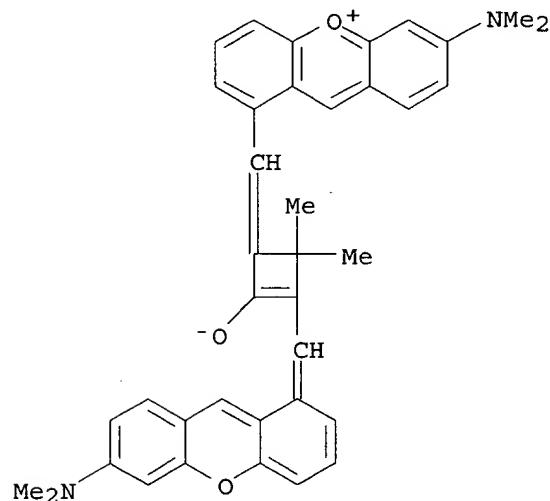
RN 400602-22-4 HCPLUS

CN Thioxanthylum, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-thioxanthen-1-ylidene]methyl]-2-hydroxy-4,5-dioxo-2-cyclopenten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



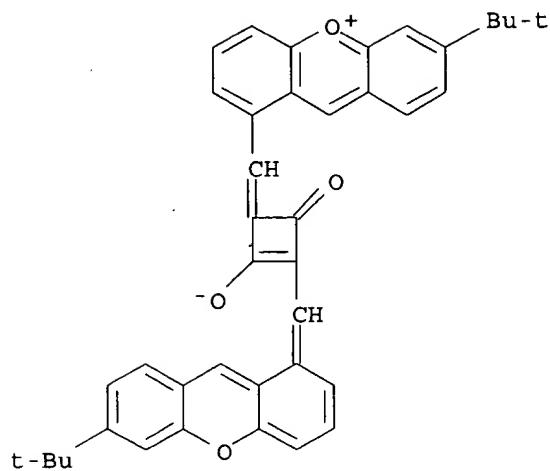
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CN Xanthylum, 6-(dimethylamino)-1-[[3-[[6-(dimethylamino)-1H-xanthen-1-ylidene]methyl]-2-hydroxy-4,4-dimethyl-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



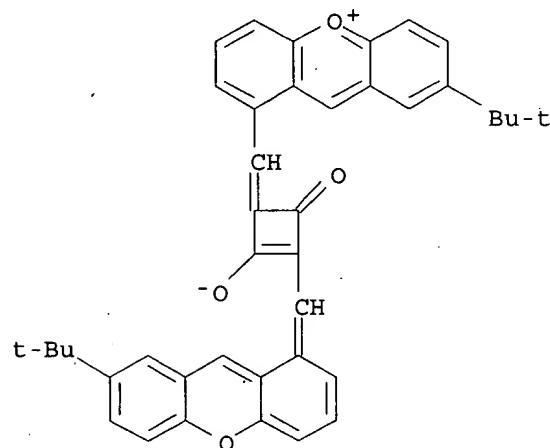
RN 400602-24-6 HCPLUS

CN Xanthylum, 6-(1,1-dimethylethyl)-1-[[3-[[6-(1,1-dimethylethyl)-1H-xanthen-1-ylidene]methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



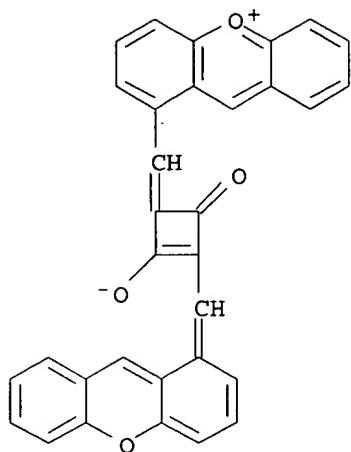
RN 400602-25-7 HCAPLUS

CN Xanthylum, 7-(1,1-dimethylethyl)-1-[[3-[[7-(1,1-dimethylethyl)-1H-xanthen-1-ylidene]methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



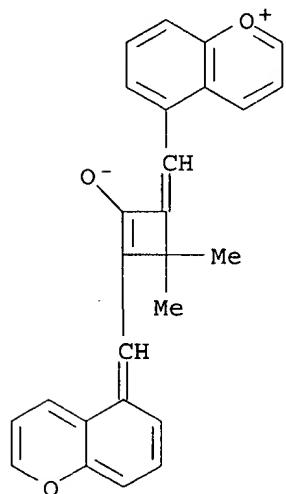
RN 400602-26-8 HCAPLUS

CN Xanthylum, 1-[[2-hydroxy-4-oxo-3-(1H-xanthen-1-ylidenemethyl)-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



RN 400602-27-9 HCAPLUS

CN 1-Benzopyrylium, 5-[[3-(5H-1-benzopyran-5-ylidenemethyl)-2-hydroxy-4,4-dimethyl-2-cyclobuten-1-ylidene]methyl]-, inner salt (9CI) (CA INDEX NAME)



REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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